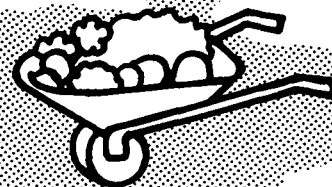
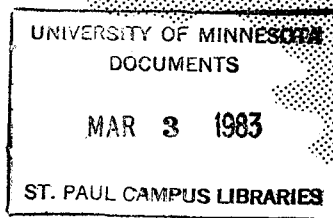


AGRICULTURAL EXTENSION SERVICE—UNIVERSITY OF MINNESOTA

YARD'N'GARDEN

Growing Vine Crops

FACT SHEET 108
C. GUSTAV HARD



Cucumbers, muskmelons, watermelons, pumpkins, and squash are the most popular vine crops. Many of the vine crops or cucurbits are eaten as vegetables, but they are actually fruits. They thrive best in hot weather, and all have similar cultural requirements. Pumpkins and squashes are often named incorrectly. The stem attached to the fruit is hard on true pumpkins and soft on true squashes, but summer squashes are actually pumpkins. Zucchini is also a pumpkin.

Vine crops trail on the ground and take up a lot of space. In small gardens they may be trained to a trellis, or bush-type plants may be used.

Preparing the Soil and Fertilizing

Muskmelons and watermelons prefer a sandy loam soil that warms up early, while other vine crops do well in heavier soils. You can improve both heavy clay soils and lighter sandy soils by adding organic matter. The soil should be well-drained and moisture retentive. Addition of manure or compost is important for good growth of the vine crops. Plow or till well-rotted manure and complete fertilizer, like 10-10-10, at a rate of 2 pounds per hundred square feet into the soil before planting. In midseason you should apply a side dressing of the same fertilizer at a rate of 1 pound for each 25 feet of row. Do not use "Weed and Feed" type fertilizers on vegetables. They contain weed killers that will kill vegetable plants.

The optimum pH range for the vine crops is between 6 and 6.5. Liming will raise the pH of acid soils. Use a soil test to determine if any special fertilization or liming is required.

Planting and Transplanting

The vine crops can be seeded directly in the garden. Plant cucumbers May 10. Space them 18 inches apart. Plant the other vine crops May 20. Space muskmelon and watermelon plants 24 inches apart. Space pumpkin and squash 36 inches apart.

If you wish you may start the vine crops indoors in peat pots and transplant them to the garden on the above dates. Use a separate container for each seed to prevent damage to the roots when transplanting. Do not start the seeds too early. Tall, overgrown plants will not do well after they are transplanted. Most seed packet information suggests planting in hills. This means to plant five or six seeds in a clump.

Plant one week earlier or later for each 100 miles south or north of Minneapolis-St. Paul.

Watering

Proper watering will enhance good production. Vine crops need at least 1 inch of water from rainfall or irrigation each week during the growing season. Always soak the soil thoroughly when watering. There is little or no value in a light watering that only wets the surface of the soil. On most soils, watering once a week is sufficient. Very sandy soils may require more frequent watering.

Controlling Weeds

Frequent, shallow cultivation will kill weeds before they become a problem. The roots of the vine crops are close to the surface of the soil, so it is important not to cultivate too deeply. Cultivate just deeply enough to cut the weeds off below the surface of the soil. Continue cultivating as long as you can do so without injuring the vines. When cultivation is no longer possible, pull the large weeds by hand.

Harvesting

Pick cucumbers and summer squash when they reach a useable size. If very large cucumbers are left on the vine the plant will decline. Harvest often, but be careful not to disturb the vine. Do not pick fruit when the vines are wet, because of the danger of spreading diseases.

Pick winter squash and pumpkins before a hard freeze. A light frost that kills the vine will usually not harm the fruit.

Harvest muskmelon when the fruit changes color; separate from the vine with a slight twist. Do not wait for the melons to separate from the vine on their own. Harvest watermelon when the underside of the fruit is greenish-yellow and it makes a dull thud sound when tapped.

Problems

Striped cucumber beetles eat the foliage of cucumbers and melons. Do not apply insecticides to plant parts that are to be eaten.

Aphids are small, soft-bodied insects that feed on the plant's juices.

Squash vine borers attack squashes and pumpkins, causing wilting and death. Sawdustlike material on the ground indicates their presence.

Squash bugs attack squashes and pumpkins, causing leaves to shrivel. Control by picking adults off plants and remove leaves that show egg-laying scars.

Shriveling of vines may be caused by bacterial wilt or anthracnose.

Yellow-green leaf color may be due to a mosaic virus, spread by aphids and leafhoppers. Plants are stunted and wrinkled and fruits are small.

Poor set of fruit (cucumber) could be due to improper pollination. Pollination may be hindered by cold rain and cloudy weather.

Tasteless melons could be due to dark or cloudy weather, disease, or lack of magnesium or boron in the soil.

Blossom drop is, to some extent, normal because only the female flowers produce fruit.